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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/540,166 | 01/25/2006 | Nagalakshmi Sreekantayya | 101174-8 | 1063 |

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| EXAMINER | |
|---|---|
| KRAUSE, ANDREW E | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 1794 | |

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| 03/24/2010 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/540,166 | SREEKANTAYYA ET AL. | |
| | Examiner | Art Unit | |
| | ANDREW KRAUSE | 1794 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *04 January 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-3 and 5-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/4/10 has been entered.

2. Claims 1-3, 5-14 are now pending. Claim 1 is currently amended.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-3, 5-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 1 recites, "the black tea manufacturing process"; however, the claim does not recite any tea manufacturing process. Thus, there is no antecedent basis for "the black tea manufacturing process". For step c, the recitation of "the above material" is indefinite because it is not clear what material the step is referring to; is it the fermented

tea material or material with the emulsion or some other material? Also, the phrase "packing suitably" is indefinite as it is unclear what is within the scope of 'suitably'?

6. Claim 6 recites an amount of antioxidant based on a weight percent, but does not disclose what the percent is based on.

7. Claim 7 recites "the sprayer" does not have antecedent basis. Claim 1 recites the step of "spraying" but does not recite any sprayer.

8. The same problem in claim 8 with respect to the recitation of " the drier". In claim 8, the limitation of "any suitable drier" is indefinite because it is not known what drier can be included or excluded. The scope of the claim cannot be ascertained.

***Claim Rejections - 35 USC § 103***

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claims 1-3, 5-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ganesan (US 2001/0033880 A1) in view of Ravichandran (Food Chemistry, 2000), Furia (CRC handbook of food additives: 1980) and Janssen (2004/0115318).

11. Regarding claims 1, 5, 11: Ganesan discloses a method for treating CTC teas wherein the teas are treated by diluting an antioxidant such as ascorbic acid to form a sprayable solution ([0025]). The sprayable antioxidant may be added onto the tea after

fermentation in the black tea manufacturing process ([0053], particularly sample 4). The treated tea is then dried ([0029]).

12. While Ganesan does not explicitly disclose packaging the tea material, it is generally known in the art to package tea for storage and to provide it to consumers. Janssen discloses the packaging of products such as tea ([0092]) in pouches or bags (claim 13) made from LDPE ([0029]). It would have been obvious to one having ordinary skill in the art at the time of the invention to provide packaging such as that in Janssen in order to provide the tea product in packaging which does not interact with volatiles within the food ([0006]-[0011]).

13. Ganesan does not explicitly disclose using the use of an emulsion of a synthetic antioxidant. Ganesan also does not disclose that the use of the antioxidant is intended to prevent the development of pacha taint.

14. Ravichandran discloses that during black tea manufacturing, a major cause of off flavors is the lipid oxidation of polyunsaturated fatty acids into C6 aldehydes and alcohols. These off flavors include the 'Pacha Taint' problem during tea storage (Introduction). Ravichandran further finds that autooxidation of lipids is accelerated during CTC processing (page 13, first paragraphs). One having ordinary skill in the art would expect the ascorbic acid used in Ganesan, an antioxidant, to provide some degree of protection against this oxidation. Furia further discloses that synthetic antioxidants,

such as BHA (butylated hydroxyl anisole) are useful in products with low fat contents of about 1-2 percent or less and of vegetable origin (paragraph bridging pages 208-209). Ravichandran (Table 1b) shows tea as falling into this category as a low lipid product, with less than about 35 g lipids per kilogram. Furia further discloses that a successful approach for applying BHA is to spray an emulsion formulation of an antioxidant solution (i.e. diluted) onto a finished product prior to packaging (final paragraph of page 209). It would have been obvious to one having ordinary skill in the art at the time of the invention to spray CTC tea such as that in Ganesan with an emulsion of BHA as disclosed in Furia, as synthetic antioxidants such as BHA are found to be more successful for stabilizing fatty acids in food products than natural antioxidants (Furia page 204, first paragraph). The stabilization of fatty acids by the added BHA would prevent lipid oxidation in CTC teas, which Ravichandran recognizes as a problem that serves to create off flavors such as pacha taint.

15. Regarding claims 2, 3, 6: The skilled artisan would find it obvious to provide an amount of 0.02 weight percent BHA based on the oil content of the tea, as such an amount is the maximum considered generally recognized as safe (Furia p. 215, 1st fyll paragraph). In discussing the emulsion spray, Furia discloses providing the antioxidant as a solution, but does not disclose a solvent. As the emulsion is being sprayed on food products, the skilled artisan would find it obvious to use water as the solvent as it is

cheaply and readily available, as well as safe for food products compared to other solvents such as ethanol, hexanes and the like. One having ordinary skill in the art would find it obvious to dilute the emulsion of antioxidant as required for the intended purpose as a matter of routine optimization of a result effective variable. Furia recognizes that the application of BHA requires the dispersion of a very small quantity of the antioxidant onto a comparatively larger quantity of the food product (p. 209-210). Thus the skilled artisan would need to dilute the antioxidant emulsion sufficiently in order to apply it over the entire area of the food product.

16. Claim 7: The rate of spray provided by the sprayer is not disclosed. However, the claim does not appear to require a specific rate of spray, as it states that the sprayer *may* be able to spray at a right of 1 L/5-8 min.

17. Claim 8-9: Ganesan discloses the drying step at 135 C in a fluidized bed drier [0053]).

18. Claim 10: It is generally well known in the tea packaging art to grade tea based on particle size to provide it in powdered, whole or loose leaf, and bagged forms.

19. Claim 12: Packaged tea is generally known to be maintained under ambient condition, for example on the shelf at a store or warehouse.

20. Claim 13: Ganesan, Ravichandran, Furia and Janssen disclose the process of claim 1. "Where…the claimed and prior art products are identical or substantially identical, or

are produced by identical or substantially identical processes, the PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product. Whether the rejection is based on "inherency" under 35 USC 102, on "prima facie obviousness" under 35 USC 103, jointly or alternatively, the burden of proof is the same, and its fairness is evidenced by the PTO's inability to manufacture products or to obtain and compare prior art products. See In re Brown, 59 CCPA 1036, 459 F.2d 531, 173 USPQ 685 (1972)." *In re Best, Bolton and Shaw* 195 USPQ 430 (CCPA 1977).

21. Claim 14: It is noted that the sensory evaluation *may* be carried out, and thus is not required by the claim. However, sensory evaluation by professional testers is generally well known in the food art.

***Response to Arguments***

22. Applicant's arguments with respect to the amended claims are believed to be addressed by the rejections above.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW KRAUSE whose telephone number is (571)270-7094. The examiner can normally be reached on 7:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571)272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lien T Tran/
Primary Examiner, Art Unit 1794

/ANDREW KRAUSE/
Examiner, Art Unit 1794
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